

Other Electronic Component Manufacturing: 2002

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2002 Economic Census

Manufacturing

Industry Series



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U.S. Department of Commerce
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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)	
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)					
334419, Other electronic component manufacturing	2002...	1 537	1 627	70 226	2 638 522	42 647	93 310	1 183 486	5 556 579	3 812 192	9 452 434	'422 972
	2001...	N	N	78 612	2 709 365	51 961	99 520	1 286 647	5 380 539	4 161 011	9 987 857	480 225
	2000...	N	N	90 922	3 046 374	63 285	119 514	1 487 742	6 937 431	5 111 067	12 062 571	459 642
	1999...	N	N	91 038	2 894 186	61 674	121 504	1 449 176	6 326 559	4 449 066	10 738 616	381 364
	1998...	N	N	89 815	2 736 746	59 765	118 324	1 348 363	5 773 545	4 270 510	10 070 583	322 762
	1997...	1 781	1 859	91 733	2 729 587	61 314	118 338	1 329 680	6 025 751	4 313 763	10 328 135	417 026

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
334419, Other electronic component manufacturing												
United States	1	1 627	662	70 226	2 638 522	42 647	93 310	1 183 486	5 556 579	3 812 192	9 452 434	'422 972
Alabama	4	16	3	152	4 676	110	194	2 368	10 585	6 867	17 273	'495
Arizona	—	35	13	1 134	44 431	602	1 433	18 716	101 253	57 810	158 899	'2 087
California	1	409	163	16 819	685 400	10 134	22 642	299 169	1 425 384	962 708	2 391 865	'187 386
Colorado	1	33	14	1 672	85 175	732	1 718	28 870	177 996	107 332	290 414	'18 215
Connecticut	2	38	17	1 534	70 163	965	2 037	30 187	141 736	87 969	232 515	'4 408
Florida	—	63	26	3 310	98 237	1 891	3 706	38 629	231 756	225 703	454 722	'19 021
Georgia	1	17	5	411	10 915	295	710	5 120	29 203	15 802	44 480	'667
Illinois	1	83	27	3 142	105 322	2 246	4 335	55 839	275 432	153 964	432 784	'16 200
Indiana	1	35	14	1 452	45 115	1 045	2 469	23 597	75 873	70 989	147 600	'2 640
Iowa	2	7	4	173	4 850	138	193	3 295	14 831	5 919	21 090	'399
Kansas	—	19	5	424	13 853	246	517	5 350	32 001	19 714	52 609	'1 199
Maryland	1	24	11	1 600	58 244	1 058	2 137	30 645	101 060	86 640	193 460	'10 087
Massachusetts	—	80	35	3 919	174 281	1 874	4 155	64 205	373 627	231 939	611 671	'20 527
Minnesota	2	34	15	2 042	66 802	1 282	2 617	30 575	144 614	77 398	223 639	'6 198
Missouri	—	11	6	767	26 321	505	1 080	12 407	35 151	30 321	63 498	'1 027
Nevada	3	12	4	255	8 588	151	388	3 569	30 398	25 419	56 420	'580
New Hampshire	1	33	10	1 022	39 484	547	1 459	15 601	85 189	51 214	136 566	'6 195
New Jersey	—	68	31	3 037	121 275	2 016	5 305	65 568	225 161	128 565	366 065	'8 539
New York	1	83	36	4 563	188 427	2 645	5 666	80 033	381 501	259 966	655 405	'19 149
North Carolina	1	31	14	1 375	44 281	923	1 769	21 066	122 550	120 512	243 287	'7 568
Ohio	1	60	21	2 062	71 806	1 218	2 494	31 700	115 062	83 365	200 140	'5 393
Oregon	—	26	8	872	29 262	684	1 855	18 861	73 853	41 984	115 142	'4 878
Pennsylvania	2	89	38	3 542	127 599	2 130	4 391	53 723	235 890	129 971	374 246	'17 866
Rhode Island	3	7	6	383	14 616	262	713	7 679	33 147	11 287	44 660	'1 079
Texas	1	82	32	3 296	135 064	2 266	5 281	75 267	351 056	386 558	744 201	'11 870
Utah	1	17	11	756	28 127	480	1 323	12 462	59 291	26 976	86 928	'3 097
Virginia	5	22	8	864	32 722	326	672	8 483	80 989	26 855	111 140	'4 447
Washington	—	35	10	2 004	67 481	980	2 084	30 696	134 308	58 167	190 877	'6 647
Wisconsin	1	29	19	1 341	40 821	866	1 786	17 927	83 573	58 408	141 627	'8 434

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
334419, Other electronic component manufacturing	
Companies ¹	number.. 1 537
All establishments ²	number.. 1 627
Establishments with 1 to 19 employees	number.. 965
Establishments with 20 to 99 employees	number.. 477
Establishments with 100 employees or more	number.. 185
All employees ³	number.. 70 226
Total compensation	\$1,000.. 3 214 811
Annual payroll	\$1,000.. 2 638 522
Total fringe benefits	\$1,000.. 576 289
Production workers, average for year	number.. 42 647
Production workers on March 12	number.. 43 538
Production workers on May 12	number.. 43 268
Production workers on August 12	number.. 42 369
Production workers on November 12	number.. 41 300
Production worker hours	1,000.. 93 310
Production worker wages	\$1,000.. 1 183 486
Total cost of materials	\$1,000.. 3 812 192
Materials, parts, containers, packaging, etc., used	\$1,000.. 3 211 039
Resales	\$1,000.. 352 433
Purchased fuels	\$1,000.. 11 725
Purchased electricity	\$1,000.. 83 180
Contract work	\$1,000.. 153 815
Quantity of electricity purchased for heat and power	1,000 kWh.. 1 153 518
Quantity of electricity generated less sold for heat and power	1,000 kWh.. -
Total value of shipments	\$1,000.. 9 452 434
Primary products value of shipments	\$1,000.. 8 173 402
Secondary products value of shipments	\$1,000.. 627 026
Total miscellaneous receipts	\$1,000.. 652 006
Value of resales	\$1,000.. 448 574
Contract receipts	\$1,000.. 85 166
Other miscellaneous receipts	\$1,000.. 118 266
Primary products specialization ratio	percent.. 93
Value of primary products shipments made in all industries	\$1,000.. 9 988 434
Value of primary products shipments made in this industry	\$1,000.. 8 173 402
Value of primary products shipments made in other industries	\$1,000.. 1 815 032
Coverage ratio	percent.. 82
Value added	\$1,000.. 5 556 579
Total inventories, beginning of year	\$1,000.. 1 799 527
Finished goods inventories	\$1,000.. 362 502
Work-in-process inventories	\$1,000.. 487 870
Materials and supplies inventories	\$1,000.. 949 155
Total inventories, end of year	\$1,000.. 1 639 004
Finished goods inventories	\$1,000.. 320 733
Work-in-process inventories	\$1,000.. 445 976
Materials and supplies inventories	\$1,000.. 872 295
Gross value of depreciable assets (acquisition costs) at beginning of year	\$1,000.. '4 218 061
Total capital expenditures (new and used)	\$1,000.. '422 972
Buildings and other structures (new and used)	\$1,000.. '96 520
Machinery and equipment (new and used)	\$1,000.. '326 452
Automobiles, trucks, etc., for highway use	\$1,000.. '11 754
Computers and peripheral data processing equipment	\$1,000.. '48 160
All other expenditures for machinery and equipment	\$1,000.. '266 538
Total retirements	\$1,000.. '326 276
Gross value of depreciable assets at end of year	\$1,000.. '4 314 757
Depreciation charges during year	\$1,000.. '372 245
Total rental payments	\$1,000.. 175 298
Buildings and other structures	\$1,000.. 123 580
Machinery and equipment	\$1,000.. 51 718
Total other expenses ⁴	\$1,000.. 717 002
Response coverage ratio ⁵	percent.. 74
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 58 781
Communications services ⁴	\$1,000.. 29 615
Legal services ⁴	\$1,000.. 19 618
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 13 585
Advertising and promotional services ⁴	\$1,000.. 39 911
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 16 726
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 5 399
Management consulting and administrative services ⁴	\$1,000.. 34 901
Taxes and license fees ⁴	\$1,000.. 24 515
All other expenses ⁴	\$1,000.. 473 952

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on 2002 Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
334419, Other electronic component manufacturing											
All establishments	1	1 627	70 226	2 638 522	42 647	93 310	1 183 486	5 556 579	3 812 192	9 452 434	'422 972
Establishments with—											
1 to 4 employees	8	540	1 123	37 743	750	1 327	17 179	86 073	45 216	130 157	'2 244
5 to 9 employees	7	224	1 490	57 334	949	2 244	26 547	112 394	72 450	188 585	'3 713
10 to 19 employees	4	201	2 837	103 363	1 830	3 999	46 883	211 255	127 203	339 934	'8 178
20 to 49 employees	2	286	9 244	337 236	6 023	14 005	158 180	685 709	414 319	1 104 370	'32 389
50 to 99 employees	1	191	13 453	487 079	8 603	20 364	229 041	1 015 376	642 223	1 672 725	'72 739
100 to 249 employees	1	135	20 139	764 484	12 348	26 657	339 419	1 728 182	1 251 630	2 993 823	'93 691
250 to 499 employees	—	39	13 091	491 769	8 286	16 840	254 900	1 050 067	850 223	1 943 522	'63 263
500 to 999 employees	—	8	5 126	196 975	2 237	4 319	64 983	363 596	220 389	595 012	D
1,000 to 2,499 employees	—	3	3 723	162 539	1 621	3 555	46 354	303 927	188 539	484 306	D
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	8	647	2 376	87 530	1 585	3 045	40 615	188 354	143 329	329 866	'7 317

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
334419	Other electronic component manufacturing	1 627	70 226	2 638 522	42 647	93 310	1 183 486	5 556 579	3 812 192	9 452 434	'422 972
3344191	Crystals, filters, piezoelectric, and other related electronic devices (except microwave filters)	91	6 043	218 215	3 379	7 224	87 569	529 796	281 199	821 404	'51 900
3344194	All other miscellaneous transducers, including electrical-electronic input/output transducers	82	8 776	346 688	4 971	12 052	148 663	716 005	425 026	1 154 917	'49 249
3344197	Switches, mechanical, for electronic circuitry	50	5 580	197 733	3 246	6 819	87 911	402 214	313 666	723 914	'19 700
334419A	Microwave components and devices, except antennae, tubes, and semiconductors	80	9 568	424 929	5 135	11 519	185 915	916 841	478 192	1 399 420	'156 217
334419E	All other miscellaneous electronic components	286	25 596	949 063	16 164	35 927	442 306	1 979 096	1 703 322	3 729 577	'101 716

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. Products Statistics: 2002 and 1997

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
334419	Other electronic component manufacturing	2002.. N 1997.. N	X X	X X	9 988 434 10 574 874
3344191	Crystals, filters, piezoelectric, and other related electronic devices (except microwave filters)	2002.. N 1997.. N	X X	X X	747 601 964 480
33441911	Crystals, filters, piezoelectric, and other related electronic devices (except microwave filters)	2002.. N 1997.. N	X X	X X	747 601 964 480
3344191100	Crystals, filters, piezoelectric, and other related electronic devices (except microwave filters) ¹	2002.. 119 1997.. 108	X X	X X	747 601 964 480
3344194	All other miscellaneous transducers, including electrical-electronic input/output transducers	2002.. N 1997.. N	X X	X X	1 208 219 1 261 240
33441941	All other miscellaneous transducers, including electrical-electronic input/output transducers	2002.. N 1997.. N	X X	X X	1 208 219 1 261 240
3344194100	All other miscellaneous transducers, including electrical-electronic input/output transducers ¹	2002.. 119 1997.. 126	X X	X X	1 208 219 1 261 240
3344197	Switches, mechanical, for electronic circuitry	2002.. N 1997.. N	X X	X X	764 738 822 899
33441971	Switches, mechanical, for electronic circuitry	2002.. N 1997.. N	X X	X X	764 738 822 899
3344197100	Switches, mechanical, for electronic circuitry ¹	2002.. 73 1997.. 88	X X	X X	764 738 822 899
334419A	Microwave components and devices, except antennae, tubes, and semiconductors	2002.. N 1997.. N	X X	X X	1 524 436 N
334419A1	Microwave components and devices, except antennae, tubes, and semiconductors	2002.. N 1997.. N	X X	X X	1 524 436 N
334419A100	Microwave components and devices, except antennae, tubes, and semiconductors ¹	2002.. 98 1997.. N	X X	X X	1 524 436 N
334419E	All other miscellaneous electronic components	2002.. N 1997.. N	X X	X X	4 317 175 N
334419E1	All other miscellaneous electronic components	2002.. N 1997.. N	X X	X X	4 317 175 N
334419E100	All other miscellaneous electronic components ¹	2002.. 392 1997.. N	X X	X X	4 317 175 N
334419W	Other electronic component manufacturing, nsk, total	2002.. N 1997.. N	X X	X X	1 426 265 1 475 989
334419WY	Other electronic component manufacturing, nsk, total	2002.. N 1997.. N	X X	X X	1 426 265 1 475 989
334419WYWW	Other electronic component manufacturing, nsk, for nonadministrative-record establishments	2002.. N 1997.. N	X X	X X	1 189 280 1 006 691
334419WYWY	Other electronic component manufacturing, nsk, for administrative-record establishments	2002.. N 1997.. N	X X	X X	236 985 469 298

¹For additional detail, see Current Industrial Report MA334Q, Semiconductors and Electronic Components.

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997**

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3344191	Crystals, filters, piezoelectric, and other related electronic devices (except microwave filters)	
	United States	2002 .. 747 601
		1997 .. 964 480
	California	2002 .. 165 264
		1997 .. 182 582
	Colorado	2002 .. 2 279
		1997 .. N
	Connecticut	2002 .. 74 394
		1997 .. 54 455
	Florida	2002 .. 71 446
		1997 .. N
	Illinois	2002 .. 62 078
		1997 .. 93 942
	Kansas	2002 .. 7 950
		1997 .. 14 914
	Massachusetts	2002 .. 62 541
		1997 .. 34 875
	New Hampshire	2002 .. 38 645
		1997 .. N
	New Jersey	2002 .. 10 845
		1997 .. N
	New York	2002 .. 9 539
		1997 .. 51 563
	Ohio	2002 .. 27 144
		1997 .. 37 573
	Oklahoma	2002 .. 3 904
		1997 .. N
	Pennsylvania	2002 .. 34 310
		1997 .. 81 005
	Texas	2002 .. 55 219
		1997 .. 90 169
3344194	All other miscellaneous transducers, including electrical-electronic input/output transducers	
	United States	2002 .. 1 208 219
		1997 .. 1 261 240
	California	2002 .. 501 041
		1997 .. 381 782
	Connecticut	2002 .. 30 970
		1997 .. 18 353
	Florida	2002 .. 41 840
		1997 .. N
	Indiana	2002 .. 102 473
		1997 .. N
	Massachusetts	2002 .. 19 559
		1997 .. 103 224
	New York	2002 .. 58 337
		1997 .. 56 942
	Ohio	2002 .. 37 874
		1997 .. 80 197
	Pennsylvania	2002 .. 23 575
		1997 .. 22 852
	Utah	2002 .. 32 396
		1997 .. 12 691
	Washington	2002 .. 71 049
		1997 .. 15 031
	Wisconsin	2002 .. 13 901
		1997 .. N
3344197	Switches, mechanical, for electronic circuitry	
	United States	2002 .. 764 738
		1997 .. 822 899
	Arizona	2002 .. 10 930
		1997 .. N
	California	2002 .. 49 755
		1997 .. 70 590
	Illinois	2002 .. 96 580
		1997 .. 140 209
	Massachusetts	2002 .. 37 854
		1997 .. 56 655
	North Carolina	2002 .. 22 851
		1997 .. 48 162
	Pennsylvania	2002 .. 37 295
		1997 .. 21 392
	Washington	2002 .. 102 246
		1997 .. N
	Wisconsin	2002 .. 25 808
		1997 .. 37 460
334419A	Microwave components and devices, except antennae, tubes, and semiconductors	
	United States	2002 .. 1 524 436
		1997 .. N
	California	2002 .. 552 174
		1997 .. N
	Florida	2002 .. 12 255
		1997 .. N
	Maryland	2002 .. 152 101
		1997 .. N
	Massachusetts	2002 .. 290 827
		1997 .. N
	New Hampshire	2002 .. 43 538
		1997 .. N
	New Jersey	2002 .. 94 850
		1997 .. N
	New York	2002 .. 189 382
		1997 .. N
	Pennsylvania	2002 .. 25 156
		1997 .. N
334419E	All other miscellaneous electronic components	

See footnotes at end of table.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997—Con.**

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
334419E	All other miscellaneous electronic components—Con.	
	United States	2002.. 4 317 175
		1997.. N
	Alabama	2002.. 40 867
		1997.. N
	Arizona	2002.. 78 945
		1997.. N
	California	2002.. 710 818
		1997.. N
	Colorado	2002.. 187 813
		1997.. N
	Connecticut	2002.. 34 458
		1997.. N
	Florida	2002.. 246 711
		1997.. N
	Georgia	2002.. 23 344
		1997.. N
	Illinois	2002.. 161 176
		1997.. N
	Indiana	2002.. 121 977
		1997.. N
	Iowa	2002.. 20 731
		1997.. N
	Maryland	2002.. 8 784
		1997.. N
	Massachusetts	2002.. 85 126
		1997.. N
	Minnesota	2002.. 41 364
		1997.. N
	Missouri	2002.. 59 156
		1997.. N
	New Hampshire	2002.. 7 769
		1997.. N
	New Jersey	2002.. 200 930
		1997.. N
	New York	2002.. 629 675
		1997.. N
	North Carolina	2002.. 131 931
		1997.. N
	Ohio	2002.. 114 415
		1997.. N
	Oregon	2002.. 58 458
		1997.. N
	Pennsylvania	2002.. 159 658
		1997.. N
	Rhode Island	2002.. 20 695
		1997.. N
	Texas	2002.. 526 078
		1997.. N
	Utah	2002.. 18 935
		1997.. N
	Wisconsin	2002.. 214 933
		1997.. N

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
334419	Other electronic component manufacturing		
00900001	Total materials .....2002..	X	3 211 039
	.....1997..	X	3 768 939
32721203	Tube blanks .....2002..	X	3 875
	.....1997..	X	9 413
33441200	Printed circuit boards (without inserted components) for electronic circuitry.....2002..	X	70 265
	.....1997..	X	59 999
001900C4	Printed circuit assemblies, loaded boards, and modules (printed circuit boards with inserted electronic components) .....2002..	X	248 201
	.....1997..	X	126 102
33441300	Semiconductors (including transistors, diodes, rectifiers, and integrated circuits), for electronic circuitry .....2002..	X	144 096
	.....1997..	X	138 266
33441400	Capacitors for electronic circuitry .....2002..	X	60 802
	.....1997..	X	54 464
33441500	Resistors for electronic circuitry .....2002..	X	33 116
	.....1997..	X	23 492
001900D3	All other miscellaneous components and accessories, for electronic circuitry (excluding tubes) .....2002..	X	D
	.....1997..	X	244 113
32518835	Silicon, hyperpure .....2002..	X	D
	.....1997..	X	D
33141911	Gold and other precious metals, all forms (including ingot, sheet, strip, solder, plating, electrodes, etc.) .....2002..	X	14 715
	.....1997..	X	53 887
33141917	Doped chemicals and other doped materials for electronic use .....2002..	X	638
	.....1997..	X	1 353
33111107	Ferrites (powder and paste).....2002..	X	16 161
	.....1997..	X	41 778
331000AA	Metal powders .....2002..	X	11 111
	.....1997..	X	11 229
33411001	Electronic computer equipment.....2002..	X	13 200
	.....1997..	X	N
33593101	Current-carrying wiring devices.....2002..	X	28 566
	.....1997..	X	53 487
33422001	Electronic communication equipment.....2002..	X	66 845
	.....1997..	X	116 819
33451501	Electrical instrument mechanisms and meter movements (including instrument relays) .....2002..	X	15 434
	.....1997..	X	8 422
33451503	All other miscellaneous electrical measuring instruments and parts .....2002..	X	6 983
	.....1997..	X	N
33531211	Fractional horsepower electric motors (less than 1 hp) .....2002..	X	1 032
	.....1997..	X	N
001900B1	Electrical transmission, distribution, and control equipment.....2002..	X	22 024
	.....1997..	X	N
33431005	Loudspeakers, microphones, and tuners (all types) .....2002..	X	D
	.....1997..	X	N
32720003	Glass and glass products (excluding windows and mirrors) .....2002..	X	10 941
	.....1997..	X	N
33331401	Optical instruments and lenses (excluding sighting, tracking, and fire control).....2002..	X	D
	.....1997..	X	D
32521105	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc. ....2002..	X	29 791
	.....1997..	X	39 691
32610011	Fabricated plastics products (excluding gaskets) .....2002..	X	37 251
	.....1997..	X	59 743
332000A9	Sheet metal products (excluding stampings) .....2002..	X	50 313
	.....1997..	X	55 070
332000AC	Metal stampings.....2002..	X	32 219
	.....1997..	X	39 699
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products .....2002..	X	47 153
	.....1997..	X	59 321
33200033	Other fabricated metal products (excluding forgings) .....2002..	X	110 559
	.....1997..	X	72 364
33210000	Forgings .....2002..	X	466
	.....1997..	X	N
33100035	Castings, rough and semifinished.....2002..	X	9 564
	.....1997..	X	15 638
33120001	Steel shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	30 778
	.....1997..	X	72 775
33142111	Copper and copper-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	4 553
	.....1997..	X	9 689
33100038	Aluminum and aluminum-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	40 274
	.....1997..	X	N
33100082	Other nonferrous metal shapes and forms (excluding aluminum and aluminum-base alloy and copper and copper-base alloy castings, forgings, and fabricated metal products).....2002..	X	8 926
	.....1997..	X	N
331000A7	Insulated wire and cable (including magnet wire) .....2002..	X	104 916
	.....1997..	X	183 334
32220017	Paper and paperboard containers (including shipping sacks and other paper packaging supplies) .....2002..	X	14 337
	.....1997..	X	29 781
32611305	Resists (photosensitive resin films applied to the surface of a wafer) .....2002..	X	1 264
	.....1997..	X	2 411
32512005	Commodity gases .....2002..	X	5 772
	.....1997..	X	3 413
32518843	Specialty gases.....2002..	X	614
	.....1997..	X	128
32599217	Masks .....2002..	X	1 646
	.....1997..	X	1 723
33141957	Silicon chips .....2002..	X	7 446
	.....1997..	X	11 789

See footnotes at end of table.

Table 7. Materials Consumed by Kind: 2002 and 1997—Con.

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
334419	Other electronic component manufacturing—Con.		
32510074	Solvents.....2002..	X	1 915
	.....1997..	X	N
32561000	Cleaning compounds .....2002..	X	1 280
	.....1997..	X	N
00970099	All other materials and components, parts, containers, and supplies.....2002..	X	928 077
	.....1997..	X	961 323
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	561 428
	.....1997..	X	1 180 745

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p—10 to 19 percent estimated; q—20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.